It would be interesting, however, to know how the observations would differ, if Prof. Barnard and Schaeberle had the use of the Arequipa instrument at a favourable opportunity, and Prof. Pickering the Mount Hamilton refractor. W. J. S. LOCKYER.

GEOLOGY AND SCENERY IN IRELAND.[1]

MR. R. WELCH, of Belfast, well-known as a photographer of Irish scenery, has of late years utilised his intimate knowledge of the country, and his keen judgment as an artist, in the preparation of special series of photographs illustrating archæological and scientific features. The brilliant exposures of volcanic and sedimentary rocks along the coast of Co. Antrim have led him to form a group of pictures which might serve as a companion to any ordinary text-book of geology; and he is rapidly extending the series by additions from the counties of Down, Donegal, and even from the far south-west. As I have had the pleasure of assisting Mr. Welch in the production of his first geological catalogue, I can make no comment on its character as a publication; but I need not hesitate to point out what valuable aid is being given to science by the recording of the physical features of Ireland, not haphazard in a series of general landscapes, but with a special geological eye. The excursions of the Belfast Naturalists' Field Club have been the means of calling attention to exposures in places outside the ordinary tourist-track; and the officers of the Geological Survey of Ireland have always been willing to give information as to suitable illustrative localities.

Two samples will show something of the detail and the range of these photographic records. Fig. 1 shows one of the fine quarry-sections on Cave Hill, Belfast. The chalk below, with lines of flints, and the basaltic lavas of the upper plateau, are always an effective contrast; but at this point dykes of dolerite are numerous, cutting through both series. The large one in the centre of the picture is columnar in its upper portion, and has a somewhat wavy course. A smaller sinuous dyke climbs towards it from the right. In the left of the original photograph, a delicate bifurcating intrusive sheet is clearly seen near the top of the horizontal lavas. Fig. 2 is a still more specialised illustration. The whole stream

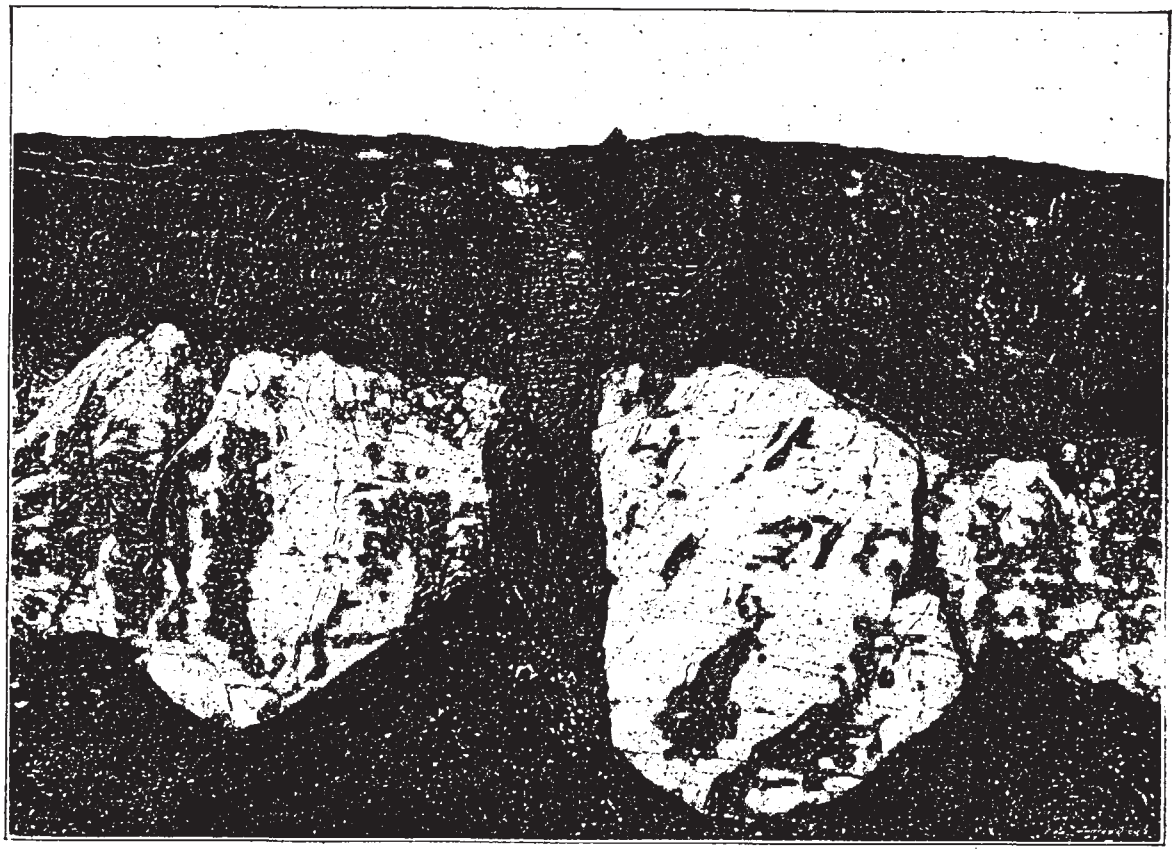

FIG. 1.—A Quarry Section on Cave Hill, Belfast.

of Glenariff is seen pouring into a pot-hole some four feet across, and the smooth sides of the hole, and the swirl of waters in its still active portion, have been admirably rendered. On the left, the rock, which is a red Triassic sandstone, shows the grooving and smoothing action of the stream. It would be interesting to photograph this spot again after an interval of twenty years.

The reproduction of such views as these in the form of lantern-slides makes them still more valuable to teachers. It is pleasant to know that Co. Antrim has its geological features now recorded for us more completely than those of any other county in the British Isles; and Mr. Welch may be congratulated on undertaking this and other scientific missions in the midst of more immediately popular professional work. The recent

[1] A Catalogue of Geological Irish Views, by R. Welch, 49 Lonsdale Street, Belfast.

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visit of the Geologists' Association to Ireland did much to direct attention to the geological features, as well as to the scenic beauties, of the eastern coast; it may be hoped that Mr. Welch's photographic series will form an introduction and an inducement to another visit, this time to the fascinating variety of igneous rocks and Mesozoic strata in the north.

GRENVILLE A. J. COLE.

FIG. 2.—Pot-Hole excavated in Triassic Sandstone, Glenariff.

NOTES.

WE are pleased to learn that Prof. Prestwich, F.R.S., has been made Foreign Member of the R. Accademia dei Lyncei, Rome, for geology and palæontology.

WE regret to hear of the death, from typhoid fever, of Prof. G. H. Williams, of Baltimore. The United States has of late years produced a band of admirable petrographers, amongst whom Prof. Williams has long held a foremost place. His early death will be lamented by a large circle of friends in Europe.

WE are sorry to have to record the death, at the age of sixty-six, of the Rev. Edward Hale, who had been for some years the senior science master of Eton College. Mr. Hale died on July 25.

THE annual meeting of the Institution of Mechanical Engineers was opened at Manchester on July 31, and is proceeding. Prof. Kennedy is presiding.

THE sixty-second annual meeting of the British Medical Association is taking place at Bristol under the presidency of Dr. E. Long Fox, who delivered his presidential address at the evening meeting of Tuesday last.

THE British Pharmaceutical Conference began its annual meeting at Oxford on Tuesday, July 31, when Mr. N. H. Martin, of Newcastle-on-Tyne, took the chair, and delivered an address.

THE autumn meeting of the Iron and Steel Institute of Great Britain, which this year takes place at Brussels, from August 20 to 24, will probably be very well attended, about 500 members having already intimated their intention of being present. The arrangements for the meeting are being organised by an influential local reception committee, of which M. Gillon, president of the Society of Engineers of Liège, is chairman, in conjunction with the general secretary of the Institute, Mr. Bennett H. Brough. During the meeting, excursions will be made to the Antwerp Exhibition, the Mariemont Collieries, the Couillet Steel Works at Charleroi, the works of the Cockerill Company at Seraing, and the Angleur Steel Works at Liège. The programme of papers to be read and discussed is a long one, there being no less a number than ten arranged for. The first on the list is, "On the Use of Caustic Lime in the Blast Furnace," by Sir Lowthian Bell. Other papers are to be contributed by Messrs. R. A. Hadfield, T. W. Hogg, H. C. Jenkins, W. G. M'Millan, John Parry, and D. Selby-Bigge, respectively, and there are to be two papers of local interest, written by Belgian engineers. Their titles are, "On the Coal-Mining Industry of Belgium," by M. Briart, President

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